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Council of the County Palatine of Durham.

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

T. EUSTACE HILL, O.B.E., M.A., M.B., B.Sc.,

AND

OTHER RECORDS,


FOR THE YEAR

1919.

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SUNDERLAND POST CO., LTD., WEST WEAR STREET,  
SUNDERLAND.

1922.



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Table B1.—RURAL DISTRICTS.—Deaths at Certain Ages and from Certain Specified Causes.



# THE COUNCIL OF THE COUNTY PALATINE OF DURHAM.

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TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I beg to present my Annual Report for the year 1919, which is the twenty-ninth of the series. In the Annual Reports I issued for the previous three years I explained the reasons for the delay in issuing them which are equally applicable to the present report. It is my intention, however, to get the reports for 1920 and 1921 issued as early as possible in the present year.

The Vital Statistics for the County during 1919, when compared with those for previous years, may be regarded as satisfactory though they compare unfavourably with those for England and Wales. Compared with 1918, when the total death-rate was 17·0 owing to an exceptionally high mortality from Influenza, a total death-rate for the year under review of 14·6 per 1,000 population is satisfactory. It should be noted, moreover, that during 1919 Influenza was again epidemic and caused no fewer than 1,535 deaths as compared with 2,924 in 1918. But for this exceptional mortality the figures for 1919 would have been very favourable.

Owing to the delay in the issue of this report, I have been able to take advantage of the Preliminary Census figures for 1921, and the population on which the vital statistics are calculated in this report are therefore approximately accurate.

It is satisfactory to note that there was no exceptional mortality from any of the principal infectious diseases during the year, and it is particularly gratifying to note that the mortality from Enteric Fever, a disease which at one time was the scourge of the County, is now almost as low as that for England and Wales. This progressive and marked reduction in the prevalence of Enteric Fever in the County is as gratifying as it is difficult to understand, for the view held by Medical Officers of Health is that Enteric Fever is directly caused by insanitary circumstances. In this

County during the last six years there has been practically no improvement in the general sanitation owing to the War, and yet during the whole of that period the prevalence of, and mortality from, Enteric Fever has progressively declined. The comparatively favourable climatic conditions which prevailed during that period have no doubt something to do with this favourable result, but I am much more inclined to think that the chief cause is the better education of the people especially in domestic hygiene, which improved education has been, to a large extent, brought about by the welfare work which is progressively developing as the result of the enlightened policy of the County Council. If I had to select the Public Health Enactment which had been most advantageous to the health of the community I should, without hesitation, name the Notification of Births Act, 1907, for it has been the means of bringing those engaged in practical health work into close touch with the people of this country. This better education is the result of the attention given not only to Maternal and Infant Welfare but also to the health of school children and the Prevention and Treatment of Tuberculosis, as well as to the influence of the Insurance Acts, and general educational measures.

We cannot, however, expect the vital statistics of our densely crowded industrial County to compare favourably with those for England and Wales until the housing conditions are very materially improved, and it is sincerely to be hoped that the sanitary authorities in this County will take full advantage of the facilities afforded them by the Housing, Town Planning, Etc., Act, 1919, to mitigate the present deplorable conditions under which such a large proportion of our industrial population are condemned to live.

I am,

Your obedient Servant,

T. EUSTACE HILL.

January, 1922.

## AREA.

During the year 1919 there was no change in the area of the Administrative County, which is 637,014 acres.

## POPULATION.

During the preparation of this report the Preliminary Census figures for 1921 have been published, and the population of the Administrative County, at mid-year 1921, is enumerated at 943,670. The 1919 population, based on the rate of increase between the 1911 and 1921 Censuses, has therefore been revised and is calculated to be 929,670. The increase of population is much less than I had anticipated having regard to the excess of births over deaths and the increased overcrowding in the County.

## VITAL STATISTICS.

In the following table the chief vital statistics of the Administrative County during 1919, and of its Urban and Rural Districts, are compared with those of England and Wales:—

Rate per 1,000 Population.	Total Urban Districts	Rural Districts.	Admin- istrative County.	England and Wales.
Birth-rate .....	25·77	24·77	25·31	18·5
Death-rate ("Crude") .....	15·24	13·88	14·61	13·7
Infant Mortality Rate per 1000 births ...	115	115	115	89
Zymotic Death-rate.....	1·00	0·90	0·96	0·55
Smallpox ... ..	0·002	...	0·001	...
Scarlet Fever ... .	0·09	0·10	0·10	0·03
Diphtheria.....	0·17	0·19	0·18	0·13
"Fevers" (Enteric & Continued).....	0·02	0·02	0·02	0·01
Measles .....	0·22	0·19	0·21	0·09
Whooping Cough.....	0·09	0·10	0·09	0·07
Diarrhoea & Enteritis (under 2 years)..	0·38	0·29	0·34	0·19
Diarrhoea & Enteritis (under 2 years) per 1000 births.....	14·88	11·76	13·47	10·22



## INFECTIOUS DISEASES.

The mortality from most of the chief infectious diseases decreased considerably during the year, especially in the case of Enteric Fever, Whooping Cough and Measles, though there was an increase in the number of deaths from Diphtheria and Scarlet Fever.

Several outbreaks of Smallpox occurred but the precautionary efforts taken to prevent the spread of the disease were successful. The first outbreak occurred in January in the Benfieldside Urban District, the disease having been brought into the district from Portugal. Only four cases occurred and all the patients recovered. A second outbreak was reported in February from the Hartlepool Urban District, and in the subsequent six weeks eleven cases were notified, there being one death. There was an exceptionally large number of "contacts," and it was fortunate that so few cases occurred. The available hospital accommodation which serves the County Borough of Hartlepool, Hartlepool Urban and Hartlepool Rural Districts is very unsatisfactory and pressure was brought to bear through the Local Government Board on the authorities to improve the accommodation. In May a single case of the modified variety was reported from the Barnard Castle Urban District and immediately removed to the Isolation Hospital. One case was also reported from the County Borough of Darlington during April. In December two cases of the disease were reported from the County Borough of Gateshead, and were removed to the hospital. Owing to the proximity of the Christmas holidays and the likelihood of considerable movements of the population, I circulated the District Medical Officers of Health in the County suggesting that they should warn medical practitioners to keep a sharp look-out for any further cases. Large numbers of the younger generation are unprotected from an attack of Smallpox, and it is of the utmost importance that these children should be vaccinated as soon as possible.

Scarlet Fever was prevalent, there being 4,086 cases notified, and the disease caused 71 deaths. The disease was seriously epidemic in Burnhope village, in the Lanchester Rural District, and after conferring with the District Medical Officer of Health, the children attending the elementary school were specially examined



by the School Medical Staff but no unrecognised cases were found and there was no evidence that school attendance was causing the spread.

The number of notified cases of Measles rose rapidly during each successive quarter of the year, and the following table sets forth the increase together with the number of deaths for the four quarters:—

	No. of cases notified.	Deaths.	Case Mortality per cent.
1st Quarter .....	342	11	3·2
2nd do. ....	696	17	2·4
3rd do. ....	1,772	21	1·2
4th do. ....	8,733	148	1·7

As I have stated in previous reports, it seems impossible by any administrative measures to prevent the periodical epidemic prevalence of this disease in a crowded industrial county such as Durham, but very much of the mortality is preventable by proper care and nursing of the patients, and I hope this year to complete arrangements for utilising the services of district nurses in the case of patients needing special nursing. I am quite satisfied that with the co-operation of medical practitioners, district nurses, and health visitors the mortality from this disease can be materially reduced.

There were 1,321 cases of Diphtheria notified and the disease accounted for 171 deaths, as compared with 991 cases and 140 deaths in 1919. It was particularly prevalent in Annfield Plain Urban District, 103 cases being notified. The District Medical Officer of Health in his Annual Report states:—"Possibly the sudden variations in the atmospheric conditions, particularly in the latter months of the year with its prevailing dampness, had a lowering effect upon the resistance to the virus in young children, and this predisposed them to fall victims more readily. Eleven deaths occurred, showing the gravity of the epidemic. All cases were removed to the Hospital." I am convinced that much of the prevalence, and a very large part of the mortality from this disease, can be prevented by the early and proper use of Diphtheria anti-

toxin combined with prompt hospital treatment. Anti-toxin is provided free of charge by most local authorities in the County on application to the Medical Officer of Health, but I have reason to believe that in some districts this extremely valuable remedy is not utilised as it ought to be.

There was no serious prevalence of Enteric Fever in any part of the County during the year, only 119 cases being notified and 22 deaths registered. One of the most satisfactory features in the health of the County during the last few years has been the marked decrease in the prevalence of this disease, which has its origin in insanitary conditions. Throughout the country generally, both in the large towns and in the smaller urban and in the rural districts there has been of recent years a most remarkable fall in the prevalence of, and mortality from this disease.

Ophthalmia Neonatorum was very prevalent during the year, especially in the last three quarters. The number of cases notified was 259 and, in accordance with our routine practice, every case which came to the notice of the County Health Department was visited by the County Midwives Inspector or supervised by the County Health Visitors. In an effort to reduce the prevalence of this disease and to obtain suitable hospital treatment, I wrote to most of the large general hospitals within, or on the periphery of, the Administrative County asking if they had any accommodation available for the treatment of this disease. It is evident from their replies that there is a great lack of suitable hospital accommodation for the treatment of this urgent affection, which so often results in blindness if there is delay in proper treatment, and, seeing that the Local Government Board have urged local authorities to obtain hospital accommodation for such cases, the facts were reported to the Ministry of Health by the County Council. In the meantime I was authorised to utilise any available accommodation for the prompt treatment of such cases, the Ministry of Health agreeing to the fees proposed by the Hospital Authorities willing to accept such cases. Subsequently I circulated the whole of the medical practitioners in the County setting forth the arrangement made for either in-patient or out-patient treatment, and stating that in cases where in-patient hospital treatment for this disease is unnecessary



or not available, cases can receive attention through the County Welfare Centres or from the district nurse or health visitor acting under the direction of the medical attendant at such centres. A list of all the Child Welfare Centres established in the County, together with the addresses of the District Nursing Associations, was also supplied.

The number of cases of Cerebro-Spinal Fever reported from the County area was 12. In accordance with the Local Government Board's Memorandum accompanying the Public Health (Cerebro-Spinal Fever) Regulations, 1919, the necessary arrangements were made with the Bacteriological Department of the College of Medicine, Newcastle-on-Tyne, for carrying into effect the Order.

Influenza was again prevalent during the early part of the year and accounted for 1,535 deaths registered as "Influenza," besides which there was also a considerable increase in the number of deaths from acute lung diseases amounting to 2,533, which no doubt were in many cases associated with Influenza. As I stated in my previous reports, the epidemic further emphasised the inadequacy of the arrangements for providing local nursing assistance in the Administrative County. I am glad, however, that there is some evidence that the importance of having the services of a nurse available in all populous districts in the County is now recognised and in many areas steps have been taken to form District Nursing Associations.

The deaths from diarrhoeal diseases of children under two years of age numbered 317, as compared with 420 in 1919.

No cases of Rabies or locally contracted Anthrax were reported during the year.

The extent to which bacteriological aid in the diagnosis of certain infectious diseases was utilised will be seen in the paragraph on "Bacteriological Examinations."

The following tables give the prevalence of the notifiable infectious diseases during 1919, and also particulars as to the incidence of and mortality from certain infective diseases during the ten years 1910-19:—



TABLE SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASES NOTIFIED IN  
THE ADMINISTRATIVE COUNTY, 1910-1919.

	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	Total of 10 years, 1910-19.
Small-pox .....	4	19	4	...	...	...	1	...	...	16	44
Scarlet Fever ...	3,419	3,253	5,658	5,447	7,797	4,291	2,761	1,704	2,313	4,086	40,729
Diphtheria .....	1,258	1,310	1,252	1,406	1,653	1,698	1,377	1,049	991	1,326	13,320
Enteric Fever ...	490	917	357	350	584	267	533	198	175	118	3,989
Continued Fever	19	33	8	6	9	6	6	2	...	2	91
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	1	...	...	...	...	1
Puerperal Fever	38	21	28	24	49	36	24	22	19	25	286
Erysipelas .....	651	638	596	711	763	603	481	329	328	384	5,484
Total.....	5,879	6,191	7,903	7,944	10,855	6,902	5,183	3,304	3,826	5,957	63,944
Attack Rate per 1,000 Living...	6.9	6.6	8.3	8.2	11.0	7.4	5.5	3.5	4.1	6.4	6.7

## INFECTIOUS DISEASE (NOTIFICATION) ACT

Weekly Statement of notifiable diseases reported during 1919.

Week ended		Small-Pox	Scarlet Fever	Diphtheria	Fever					Ophthalmia Neonatorum	Erysipelas	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis
					Enteric or Typhoid	Typhus	Relapsing	Continued	Puerperal				
January	4	3	51	13	1	...	...	...	1	2	9	10	10
"	11	...	58	13	4	...	...	...	...	2	6	21	12
"	18	1	65	19	3	...	..	1	1	2	5	17	17
"	25	...	75	15	3	...	...	...	1	...	12	28	10
February	1	...	60	20	1	...	...	...	...	3	2	27	16
"	8	2	55	22	1	...	...	...	...	1	7	21	9
"	15	...	39	20	2	...	...	...	1	1	10	27	9
"	22	1	35	30	2	...	...	...	...	2	6	20	10
March	1	2	54	21	1	...	...	...	...	...	6	16	10
"	8	3	47	14	1	...	...	...	...	3	11	24	13
"	15	2	29	22	...	..	...	...	...	1	6	14	6
"	22	...	41	18	1	...	...	...	1	3	8	15	15
"	29	1	45	22	1	...	...	...	2	6	5	30	13
April	5	...	56	23	1	...	...	...	...	4	7	28	27
"	12	...	43	20	...	...	...	...	...	3	9	30	13
"	19	...	39	26	2	...	...	...	1	3	4	40	16
"	26	..	37	19	...	...	...	...	...	2	1	21	13
May	3	1	48	24	2	...	...	...	...	4	9	30	17
"	10	...	37	8	1	...	...	...	1	3	7	21	15
"	17	...	48	25	1	...	...	...	...	5	7	33	21
"	24	...	44	17	2	...	...	...	1	9	9	37	26
"	31	...	40	26	1	...	...	...	...	9	9	41	25
June	7	...	59	22	1	...	...	...	1	9	7	31	14
"	14	...	32	24	...	...	...	...	...	7	3	26	13
"	21	...	58	18	...	...	...	...	1	7	7	29	20
"	28	...	58	13	...	...	...	...	...	4	3	25	16
July	5	...	48	26	3	...	...	...	...	4	3	18	13
"	12	...	53	22	2	...	...	...	...	5	2	41	16
"	19	...	56	21	1	...	...	...	...	7	4	25	4
"	26	...	52	26	...	...	...	...	...	5	5	23	3
August	2	...	46	25	...	...	...	...	...	4	4	23	9
"	9	...	36	20	4	...	...	...	1	7	7	19	3
"	16	...	53	19	2	...	...	...	...	9	6	22	3
"	23	...	59	14	...	...	...	...	...	6	7	13	3
"	30	...	59	25	1	...	..	...	...	7	3	13	9
September	6	...	91	17	1	...	...	1	...	5	10	9	11
"	13	...	69	48	6	...	...	...	...	4	4	35	13
"	20	...	81	29	12	...	...	..	1	...	8	23	12
"	27	...	99	33	4	...	...	...	...	4	11	21	13
October	4	...	126	27	10	...	...	...	..	4	6	16	8
"	11	...	137	31	5	...	...	...	1	7	11	20	8
"	18	...	131	30	6	...	...	...	1	10	3	14	11
"	25	...	162	26	7	...	...	...	...	4	12	11	9
November	1	...	153	37	3	...	...	...	1	8	14	13	6
"	8	...	184	41	7	...	..	...	2	4	8	19	6
"	15	...	142	37	5	...	...	...	...	7	9	16	20
"	22	...	163	34	2	...	...	...	...	7	14	15	16
"	29	...	143	40	1	...	...	...	2	13	9	19	8
December	6	...	156	52	...	...	...	...	...	2	8	15	9
"	13	...	137	31	...	...	...	...	1	4	9	20	14
"	20	...	148	44	...	...	...	...	2	6	11	17	4
"	27	...	125	36	2	...	...	...	1	4	10	7	7
January 3rd, 1920	...	...	124	21	2	...	...	...	...	6	11	16	10
Total for the year		16	4086	1326	118	...	...	2	25	253	384	1164	635

TABLE GIVING FOR EACH YEAR THE NUMBER OF DEATHS AND THE DEATH-RATE  
FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES DURING THE TEN YEARS,

1910 TO 1919.

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	Mean of 10 years.
Estimated Population ...	916,150	933,780	951,750	970,070	985,292	940,190	926,986	926,986	926,986	929,670	940,786
Small-pox .....	...	...	1	...	...	...	...	...	...	1	...
Scarlet Fever ...	70	74	99	148	214	102	62	33	71	94	97
Diphtheria .....	150	155	157	184	228	270	192	170	140	171	182
Enteric and Continued Fever	85	159	63	67	110	51	79	29	40	22	70
Measles.....	176	417	496	398	164	1009	55	364	210	197	349
Whooping Cough	224	365	259	177	359	216	222	155	312	90	238
Diarrhoea .....	702	1547	257	834	1110	596	328	466	420	317	658
TOTAL ... ..	1407	2717	1332	1808	2185	2244	938	1217	1193	892	1,593
Rate per 1,000 Living .....	1.53	2.90	1.39	1.86	2.21	2.38	1.01	1.31	1.28	0.96	1.70



# REPORT OF THE CENTRAL TUBERCULOSIS MEDICAL OFFICER FOR THE YEAR ENDING 31st DECEMBER, 1919.

## NOTIFICATIONS.

The number of notifications received by the County Medical Officer of Health for the year 1919 was 1,745.

	Pulmonary.	Non-Pulmonary.	Total.
Males .....	612	333	945
Females ... . .	486	314	800
Totals .....	1,098	647	1,745

## DEATHS.

The number of deaths from Tuberculosis during 1919 was 1,170, namely, 846 Pulmonary and 324 Non-Pulmonary.

The following table gives the death-rate from Phthisis in the Boroughs and in the Urban and Rural Districts in the County:—

Rate per 1,000 Living.	1916.	1917.	1918.	1919.
Boroughs .. .. .	1·42	1·42	1·66	1·37
Other Urban Districts...	0·67	0·75	0·79	0·91
Rural Districts.....	0·83	0·84	0·90	0·76
Administrative County...	0·95	1·00	1·08	0·91
England and Wales...	1·17	1·25	1 34	0·99

## APPLICATIONS FOR SANATORIUM BENEFIT.

The following table shows that the total number of new applications from Insured and Non-Insured persons for Sanatorium Benefit during 1919 was 2,279, and it will be noticed that only

1,745 were notified to the County Medical Officer of Health, but 136 of the new applicants were non-tuberculous and in 45 cases no definite diagnosis of tuberculosis had been made at the end of the year. These patients were then attending the Dispensaries for observation.

	Male.	Female.	Children.	Total.
Insured .....	768	112	...	880
Non-Insured .....	39	304	1,056	1,399
<b>Totals.....</b>	<b>807</b>	<b>416</b>	<b>1,056</b>	<b>2,279</b>

#### FORM OF TREATMENT GRANTED TO NEW APPLICANTS.

This table shows that Institutional and Dispensary treatment were granted to 1,328 and 629 patients respectively. In the case of 9 patients Surgical Appliances only were supplied. 226 patients received no treatment, and of these 136 were found to be non-tuberculous, and 45 were still under observation at the end of the year, and a definite diagnosis had not been arrived at. The remainder did not receive treatment until the following year.

Treatment.	Insured.		Not Insured.			Totals.
	Male.	Female.	Male.	Female.	Children.	
Sanatorium .....	448	56	23	159	359	1,045
Hospital .....	47	14	3	35	184	283
Dispensary .....	152	26	6	68	377	629
Domiciliary and Home Treatment ...	27	6	1	5	16	55
No Treatment recommended.....	59	3	1	13	60	136
Appliances .....	2	...	...	1	6	9
Died before Treatment	13	1	3	7	8	32
Reports not completed	20	6	2	16	46	90
<b>Totals .....</b>	<b>768</b>	<b>112</b>	<b>39</b>	<b>304</b>	<b>1,056</b>	<b>2,279</b>

## INSTITUTIONAL TREATMENT.

During the year 1919, 1,425 patients were admitted and 1,404 discharged after receiving treatment in a Sanatorium, General Hospital or Pulmonary Hospital.

Under Treatment 31-12-18.			Admitted during 1919.			Discharged during 1919.			Remaining under Treatment 31-12-19.		
M.	F.	Child- ren.	M.	F.	Child- ren.	M.	F.	Child- ren.	M.	F.	Child- ren.
113	35	174	626	267	532	591	266	547	148	36	159

Of the 343 patients in Institutions on the 31st December, 296 were in Sanatoria or Pulmonary Hospitals and 47 in General Hospitals.

## INSTITUTIONAL TREATMENT OF TUBERCULOUS EX-SERVICE MEN.

During 1919, 346 Ex-Service men were admitted to Sanatoria, Pulmonary Hospitals or General Hospitals and 292 were discharged during that period. On the 31st December, 79 Tuberculous Ex-Service men were receiving Institutional treatment.

The number of patients awaiting admission to Sanatoria and Hospitals at the end of each Quarter during 1918 and 1919 is shown in the following table:—

Quarter ending.	1918.	1919.
31st March .....	110	193
30th June .....	379	373
30th September.....	296	422
31st December .....	109	290

## CONDITION ON DISCHARGE FROM INSTITUTIONS.

This table shows the condition on discharge of the 1,404 patients who received treatment during the year:—



	Sanatoria.	Hospitals.	Totals.
Fit for Work or School.....	166	33	199
Improved .....	619	273	892
Stationary .....	184	27	211
Worse .....	72	2	74
Died in Institution .....	18	10	28
Totals .....	1,059	345	1,404

79 patients left before the completion of the period of treatment, and 57 of these were tuberculous Ex-Service men.

### NON-PULMONARY CASES TREATED IN INSTITUTIONS.

During the year 490 patients suffering from Non-Pulmonary Tuberculosis were treated in Institutions; 356 of these were children and the remainder, namely, 134 were adults.

As the County of Durham have approximately 60 beds at Stannington Sanatorium, we were able to have 82 of the children with Non-Pulmonary Tuberculosis treated at this Institution on conservative lines.

### DISPENSARY TREATMENT.

Insured.				Not Insured.						Total.
Pulmonary.		Non-Pulmonary.		Pulmonary.			Non-Pulmonary.			
M.	F.	M.	F.	M.	F.	Child-ren.	M.	F.	Child-ren.	
475	72	49	19	14	127	336	6	39	313	1,450

Number of New cases, including contacts,		
examined during 1919 .....	2,656	
Number of attendances of Old cases.....	16,726	
Total.....	19,382	

## DOMICILIARY TREATMENT.

This form of treatment was granted to 292 Males and to 21 Females.

MALES.		FEMALES.		TOTAL.
Pulmonary.	Non-Pulmonary.	Pulmonary.	Non-Pulmonary.	
281	11	19	2	313

## SHELTERS.

42 patients had the use of shelters during the year, and on the 31st December 35 were occupied by patients receiving Dispensary or Domiciliary Treatment, 23 at Sanatoria, and 2 were awaiting removal. Total 60.

## SURGICAL APPLIANCES.

13 Adults and 36 Children were supplied with Surgical Appliances during the year.

## BACTERIOLOGICAL EXAMINATIONS.

Number of Specimens submitted.	RESULT.		
	Positive.	Negative.	Inconclusive.
994	172	822	...

## VISITS TO PATIENTS BY HEALTH VISITORS.

During the year 24,577 visits were made by the Health Visitors, 1,181 of which were to Ex-Service Men.

The total number of Tuberculous patients under supervision on the 31st December was 6,509, and of these 704 were Tuberculous Ex-Service men.

## OUTLINE OF PRESENT SCHEME FOR DEALING WITH TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY OF DURHAM.

Under the Scheme treatment is granted to both Insured and Uninsured Persons who are suffering from any form of Tuberculosis.

### THE DISPENSARY ORGANISATION.

The Administrative County has been divided into seven districts, each of which is under the charge of a District Tuberculosis Medical Officer.

These Dispensaries are clearing houses for tuberculous patients; all cases are sorted out and the proper treatment recommended in each case.

Specialised methods of treatment are undertaken at the Dispensaries for special cases, and a certain amount of symptomatic treatment is given, but the work consists largely of consultations in connection with the diagnosis of Tuberculosis.

The D.T.M.O. exercises general supervision over all domiciliary treatment. All reports on domiciliary cases sent in to the Central Office by general practitioners are forwarded to the Dispensaries for the information of the D.T.M.O.

The Central Office for dealing with Tuberculosis is in charge of the Central Tuberculosis Medical Officer, to whom all recommendations with regard to Hospital, Sanatorium Treatment, etc., are forwarded by the D.T.M.O's.

In order that general practitioners may keep in touch with the Dispensaries a copy of the County Scheme has been forwarded to them. This Scheme shows the constitution of the districts, the names and addresses of the D.T.M.O's, and the days and hours on which they attend the Dispensary for consultation work.



## SANATORIUM ACCOMMODATION.

1. Wolsingham Sanatorium	...	...	95 beds.
2. Blackfell	„	...	38 „
3. Maiden Law	„	...	42 „
4. Sealburn	„	...	22 „
5. Helmington Row	„	...	14 „
6. Tindale Crescent	„	...	12 „
7. Hebburn	„	...	24 „
*8. Stannington	„	For children only	70 „
9. Sunderland Rural	„	...	14 „
Total			331 beds.

\* Thirty of the beds at this Institution are used for  
Surgical Tuberculosis.

## HOSPITAL ACCOMMODATION FOR SURGICAL TUBERCULOSIS.

The County Council have entered into an agreement for the admission and treatment of surgical cases of Tuberculosis with the following General Hospitals in the County of Durham:—

1. Gateshead Children's Hospital.
2. Ingham Infirmary, South Shields.
3. Durham County Hospital.
4. Sunderland Royal Infirmary.
5. Children's Hospital, Sunderland.
6. Southwick & Monkwearmouth Hospital.
7. The Hartlepoons' Hospital.
8. Darlington Hospital.
9. Stockton & Thornaby Hospital.
10. Royal Victoria Infirmary, Newcastle-on-Tyne.

The number of beds is variable.

## RESIDENTIAL TREATMENT OF ADVANCED CASES.

No special institution is set apart for the isolation and treatment of advanced cases, but these patients are distributed among the sanatoria with pavilions for accommodation for all stages of the disease.

## X-RAY EXAMINATIONS AND TREATMENT.

The X-Ray apparatus of the following hospitals is now used as an aid to the diagnosis of doubtful cases of tuberculosis of the lungs, bones, joints, and also in the treatment of certain cases of tuberculosis of the skin, viz.:—Durham, Darlington, Ingham Infirmary, Monkwearmouth & Southwick Hospital, Stockton & Thornaby Hospital, and the Royal Infirmary, Sunderland.

BACTERIOLOGICAL EXAMINATIONS are carried out at the College of Medicine, Newcastle-on-Tyne.

## VISITATION OF HOSPITALS & SANATORIA BY DISTRICT TUBERCULOSIS MEDICAL OFFICERS.

In order that D.T.M.O's may follow up the progress of their patients after their admission to institutions, arrangements have been made for these officers to visit all the hospitals and sanatoria in the County to examine their cases at intervals during their course of treatment as in-patients.

The inspection of these cases is made in company with the Medical Superintendent, the Honorary Medical Officer or the Resident Medical Officer of the Institution.

## ADMISSION OF PATIENTS TO HOSPITALS & SANATORIA.

The C.T.M.O. arranges for the admission of all cases to Sanatoria and Hospitals. Copies of admission letters are sent by the C.T.M.O. to the D.T.M.O's, H.V's., General Practitioners in charge of the case, and the local Medical Officer of Health.

Treatment is not restricted to a stated period but can be renewed at the direction of the M.O. in charge of the Institution. All extensions of treatment are granted by the C.T.M.O. on the Medical Superintendents' recommendation. Priority of admission is given to tuberculous Ex-Service Men.

## DISCHARGE OF PATIENTS FROM HOSPITALS & SANATORIA.

All patients on their discharge are given written instructions to attend the Dispensary in their district. The D.T.M.O., H.V's.,

General Practitioners in charge of the patient, and local M.O.H. are notified by the C.T.M.O. of the date of the patient's discharge. The C.T.M.O. also sends to each Dispensary a copy of the Medical Superintendent's report, which gives in detail the patient's physical condition on his discharge.

#### AFTER-CARE.

The Dispensaries are the centres for after-care work. The Discharge Reports from the hospitals and sanatoria are sent to the dispensaries by the C.T.M.O. so that the physical sounds found may be compared with these reports.

At the same time an after-care report is forwarded by the D.T.M.O. to the C.T.M.O., who notifies the patient whether or not further treatment has been recommended in his case. If able to work the patient is advised as to the type of work he should take up.

The H.V's visits are continued in order to see that the instructions received at the sanatorium and dispensary are carried out by the patient.

Contact cases may also be recognised at these visits, and the patient sent to the Dispensary for examination by the D.T.M.O.

At the present time there is only one After-Care Committee at work.

#### HOME VISITING BY H.V's AND D.T.M.O's.

The names and addresses of all patients suffering from Tuberculosis are sent to the H.V. The D.T.M.O. also receives a weekly list of notifications.

Each patient is visited by the H.V's and receives verbal and written instructions especially with regard to disposal of sputum. Arrangements are also made by the H.V. for the attendance of patients and contacts at the Dispensary. Patients too ill to attend the Dispensary are visited at their homes by the D.T.M.O. Home visits are also made by the D.T.M.O's when necessary, to patients receiving Domiciliary Treatment.

The H.V's do not undertake home nursing.



EXTRA NOURISHMENT is granted to insured persons only, and to tuberculous ex-service men it is provided by the War Pensions Committee at the cost of Pensions Funds.

### SLEEPING SHELTERS.

Provided there is available space in the neighbourhood of the patient's home, sleeping shelters are given to suitable cases.

### CO-OPERATION WITH THE SCHOOL MEDICAL OFFICERS AND LOCAL MEDICAL OFFICERS OF HEALTH.

All cases of Tuberculosis or suspected Tuberculosis detected during routine School Medical Inspections are referred to the Dispensaries by the School Medical Officers. The D.T.M.O's also report whether a child is or is not fit to attend school.

Any sanitary defects discovered by the H.V. on her periodic visits are reported to the local Medical Officer of Health.

### CO-OPERATION WITH THE MEDICAL PROFESSION.

The services of the Dispensary Tuberculosis Medical Officers are frequently asked for by local doctors in consultation as to diagnosis and treatment of special cases.

Throughout the County generally the relations between general practitioners and the dispensary staff have been cordial.

In connection with Domiciliary Treatment the progress report of cases are sent in fairly regularly, although there is often delay on the part of some doctors.

As a general rule cases are referred to the Dispensary at an early stage, but it still happens that a diagnosis is not made by general practitioners till the disease has reached an advanced stage. Unfortunately also there is neglect on the part of certain general practitioners in the County to notify cases of Tuberculosis to the Medical Officer of Health.

## READINESS, OR OTHERWISE, OF PATIENTS TO AVAIL THEMSELVES OF THE FACILITIES PROVIDED FOR DIAGNOSIS AND TREATMENT.

There is occasionally reluctance on the part of adult patients to seek advice at an early stage.

Offers of treatment are rarely refused, but a certain number of patients discharge themselves from Sanatoria after a brief stay and against the advice of the Medical Superintendent.

## ADEQUACY, OR OTHERWISE, OF THE PROVISION MADE IN THE COUNTY FOR THE TREATMENT AND PREVEN- TION OF TUBERCULOSIS.

The accommodation now available in sanatoria is sufficient for the needs of the adult female population.

When the new extensions which are now being carried out at the Holywood Hall Sanatorium are completed we shall have sufficient beds for early male cases. Additional accommodation may still be required for the treatment and isolation of advanced cases. Our most urgent need at present is further accommodation for tuberculous children. In the Administrative County to-day there are 230 tuberculous children on the waiting list for admission to sanatoria. Of these 190 are suffering from Tuberculosis of the lungs and the remainder, viz., 40, from surgical forms of the disease.

The total number of beds available in the County for tuberculous children is approximately 130. This figure includes beds in several children's hospitals, which are variable, as we have no beds specially allotted to us in these institutions. The majority of the children in Urban General Children's Hospitals would be under much more favourable conditions in a special country sanatorium where the treatment of Surgical Tuberculosis would be mainly conservative.

## LINES ON WHICH THE SCHEME NEEDS TO BE EXTENDED.

Relapses are very common after sanatorium treatment. Many patients return to insanitary and overcrowded houses with poor ventilation, and resume work at their old occupations, which are frequently unsuitable. A breakdown is inevitable in a great number of cases. To secure the permanency of the arrest of the disease after discharge from the sanatorium the patient should enter a training colony for continuance of treatment, but mainly for training for a suitable employment. He should then be transferred to the village settlement where permanent employment is afforded.

A complete scheme then requires, in addition to the sanatorium, the industrial colony and the village settlement.

## AFTER-CARE.

After-Care Committees should be set up in every dispensary district. Extra nourishment should be available for all necessitous patients, insured and uninsured.

## CLERICAL ASSISTANCE AT DISPENSARIES.

The County Tuberculosis Scheme does not provide for clerical assistance at dispensaries, and a large amount of the Tuberculosis Medical Officers' time is therefore taken up in replying to general routine correspondence, and in writing certificates and reports for the Ministry of Pensions Committees. The provision of a clerk at each dispensary would leave the T.M.O. free to devote more time to clinical work.

## MILK SUPPLY.

Frequent samples of milk should be taken from different districts for bacteriological examination.



## HOME NURSING OF CONSUMPTIVES.

Arrangements might be made with the County Nursing Association for their nurses to look after all cases who in the opinion of the D.T.M.O. require nursing care.

## HOME-HELPS.

Institutional Treatment is sometimes refused by tuberculous mothers with young children because of their difficulties in finding suitable persons to care for their children.

It is also common for this class of patient to ask for her discharge after a week or two at a sanatorium on account of anxiety about her children at home.

The provision of home helps to look after the children of these patients is a matter of urgent importance, and in my opinion will help to solve our present difficulty in connection with the treatment of these tuberculous mothers with young families.

RESIDENTIAL OPEN-AIR SCHOOLS should also be built for tuberculous children who are unable to attend ordinary elementary schools.

## DENTAL TREATMENT.

The teeth and gums of consumptives frequently require attention, and for this purpose the provision of a dental clinic in connection with the Dispensary is advisable.

D. F. MACRAE,

Tuberculosis Medical Officer.

## MATERNITY AND CHILD WELFARE.

During the year under review, 19,995 birth notifications were received by me from the area in which the Notification of Births Act is administered by the County Council (i.e., the whole of the Administrative County less Hartlepool, Jarrow, Stockton and Whickham Urban Districts) and were 15 in excess of the births registered in the same area. This percentage compares favourably with the figure for 1918, which was 89·6%. It is noticed that the number of unnotified births in the individual districts invariably increases during the summer months when many of the medical practices are left in the hands of "locums" who fail to realise the importance of notifying every birth promptly.

Of the total number of deaths registered in the County during the year 1919, 2,711 or 19·1% were of children under 1 year of age. This gives a rate per 1,000 births of 115, and is 26 per 1,000 above the rate for England and Wales for the same year.

The following table gives the infant mortality-rate in the Administrative County since 1901, and from this it will be seen that the rate in 1919 shows a decrease on all previous years except 1912 and 1917:—

Year.	Births.	Deaths under 1 year.	Rate per 1,000 Births.
1901	27,990	5,074	181
1902	27,813	3,949	141
1903	28,370	4,579	161
1904	28,583	4,640	162
1905	29,977	4,458	159
1906	29,007	4,583	157
1907	28,993	3,954	136
1908	31,297	4,750	151
1909	30,410	3,792	124
1910	29,858	3,772	126
Mean of 10 years	2,229·8	4,355·0	149

Year.		Births.		Deaths under 1 year.		Rate per 1,000 Births.
1911	...	29,643	...	4,725	...	159
1912	...	29,671	...	3,161	...	106
1913	...	29,778	...	4,079	...	137
1914	...	30,802	...	4,149	...	135
1915	...	26,076	...	3,453	...	132
1916	...	23,364	...	2,712	...	116
1917	...	21,322	...	2,473	...	111
1918	...	23,046	...	2,742	...	119
1919	...	23,529	...	2,711	...	115

There is not the slightest doubt but that this steady decline is due, to a large extent, to the activities of the County Council through the Health and Maternity and Child Welfare Committees.

The average number of health visitors on the staff during 1919 was forty-six. There were eight part-time health visitors in addition.

During the year the time of health visitors was apportioned as follows:—

Maternal and Infant Welfare.....	54%.
Tuberculosis Scheme .....	29%.
Supervision of School Children .....	17%.

The work at the child welfare centres under the County Maternity and Child Welfare Scheme continued to grow rapidly and at several of the centres in the busy industrial districts additional sessions had to be arranged, the large attendance taxing to the utmost the resources of the staff. The appointment of an Assistant Welfare Medical Officer was decided upon, and Dr. M. G. Brodie, who had been performing temporary duty during the absence of the Welfare Medical Officer, was appointed and commenced permanent duty on the 20th October, 1919. In addition, a second clerk was appointed to assist at the centres and also in the office. The provision of further clerical assistance at the centres to relieve health visitors of less important duties is receiving consideration.



The absence of suitable and adequate premises for establishing new infant welfare centres is one of the chief obstacles to be overcome in the many districts which urgently need such centres.

### ANTE-NATAL WORK.

As in other counties, very little ante-natal work has so far been done at the centres, partly because the women are ignorant of the benefits to be derived from care of their pregnant condition and partly because even doctors and midwives are somewhat chary of advising their patients to attend centres about which they themselves do not yet know enough.

A few expectant mothers have come for advice, and those who have already brought a toddler are more likely to attend when again pregnant. The work has been hindered by lack of suitable accommodation and equipment, and in consequence could not be pushed to the same extent.

In this County though we have plenty of enthusiastic voluntary help at some of the Centres, at others there is no voluntary committee at all. The Welfare Medical Officer, referring to the need for both voluntary and professional help, states:—"By professional help, I mean trained nurses who in addition to their general training and midwifery qualifications have had special experience in the care and management of babies, sick and well. These nurses would act as superintendents at each centre, as is recommended in the latest memorandum regarding Maternity and Child Welfare (M. & C.W. 14) issued by the Ministry of Health. I wish to make it quite clear that by pointing out the need for such professional help at the centres I thereby far from deprecate the services of various health visitors who have so ably and devotedly assisted up till now. Their services would still be required, as is also advised by Memo. M. & C.W. 14."

At the end of the year 16 Child Welfare Centres were in operation, and it was proposed to establish other Centres at Seaham, Horden, Shotton Colliery, Ferryhill, Houghton-le-Spring and Spennymoor.

In her report for the quarter ended 31st December, 1919, the Welfare Medical Officer makes the following recommendations for the improvement of the County Scheme:—

(1) New premises or Army huts should be obtained for adaptation as child welfare centres as soon as possible.

(2) As a beginning, two nurses (one attached to each Medical Officer) with general training in infant care and experience in ante-natal work should be appointed to act as superintendents of the centres. With additional assistant Medical Officers additional nurses would be required.

(3) It will be evident that with the approaching increase of centre work in the County, not only caused by the opening of the existing centres more than once weekly, but also of the new centres when premises are obtained, another assistant Medical Officer will very shortly be required. It would be advisable to make the appointment within the next three months.

(4) The provision of dental treatment for mothers and children.

(5) Making of arrangements with specialists at various hospitals to treat cases of minor ailments referred from the centres.

(6) The provision of beds in convalescent homes for mothers and children.

(7) The provision of beds for babies and children under five is needed, and I recommend that the County Council take steps to obtain a large house in a good centre for the purpose of a baby hospital.

(8) The provision of homes for unmarried mothers and their children.

(9) Provision by the County Council of adequate travelling facilities for mothers attending the centres.

With regard to the County Nursing Association, steady progress had been made and, at the end of March, 1920, 15 new District Nursing Associations had been formed, making a total of 35 affiliated district nursing associations. Several new associations are in process of formation. The County Council has undertaken to give the following grants to the nursing associations affiliated to the County Nursing Association:—

(1) A grant of £10 towards the initial expenses of a district nursing association which employs a midwife.

(2) A grant of £15 towards the expenses of the County Nursing Association in the training of midwives who will practise in the County.

(3) A grant to meet any deficiency of district nursing associations affiliated to the County Nursing Association in respect of the provision of a whole-time midwife, provided certain conditions are observed as to fees to be charged, etc. by the midwife.

(4) A grant of £10 per annum to affiliated district nursing associations whose area has a population of less than 10,000, for services rendered in connection with the nursing of cases of tuberculosis, ophthalmia neonatorum, epidemic diarrhoea, puerperal fever, measles and whooping cough, with an additional £5 per annum for each additional 5,000 population or part thereof.

The Executive Committee of the County Nursing Association emphasise the necessity existing in the County for the provision of maternity hospital accommodation for the proper treatment of maternity cases, surgical or otherwise, and for the efficient training of a staff of midwives for service in the County. In both respects the Administrative County is, at present, practically without provision. Under the County Nursing Association 18 candidates have been sent for training: 13 to Plaistow, 3 to Govan and 2 to maternity hospitals for midwifery. Three of these left during the course of the training, 1 for illness, and 2 being found unsuitable. Three pupils have passed the examination of the Central Midwives Board.



The development of the County Trained Midwifery Scheme proceeded satisfactorily but, in view of the circular letter from the Local Government Board, dated 9th August, 1918, in which great importance is attached to the raising of the status of the midwives and to the necessity for providing them with adequate remuneration, I submitted to the County Health Committee a special report as the outcome of which the following recommendations were adopted by the County Council:—

(1) The County Council to guarantee to every approved trained midwife devoting her whole time to the work of midwifery a salary of £120 per annum.

(2) In addition, such midwife to be guaranteed a bonus of 4/- per case up to 150 cases per annum. The bonus would ensure that a midwife attending 150 cases per annum would have a total income of £150, and would be an inducement to the midwife to increase the number of her patients.

(3) The midwife, except in strictly necessitous cases, to charge a fee of 10/6 for each confinement which it will be her duty to collect and which will be set against the income guaranteed by the Council.

(4) The midwife to attend all women who need her services within the area in which she practises.

(5) The midwife to attend as a maternity nurse under a medical practitioner when her services are so required, and to charge a minimum fee of 5/- for such services, the Council's bonus of 4/- being also payable in respect of each such case.

(6) The midwife to act under the directions of the County Medical Officer, and to co-operate with the Maternity and Child Welfare Centre of the district in which she practises, so far as the interests of the mothers and infants under her care require it.

(7) The midwife to be allowed two weeks' holiday each year, and to at once report absence from duty owing to illness or other cause to the County Medical Officer.

(8) An agreement embodying the whole and any other necessary conditions to be entered into between the County Council and the midwife, renewable annually and determinable at any time in case of negligence, incompetence or misconduct on the part of the midwife.

It may be admitted that the fee of 10/6 per confinement is inadequate for the services of a trained midwife, but I gave this matter very careful consideration and decided that, for the present, this small fee, having regard to the conditions prevailing in the County, would be more satisfactory. If a fee of say £1 1s. 0d. were charged many women would refrain from engaging a trained midwife, and would continue the unsatisfactory practice of engaging "handy women" to look after them, and in many cases only call in the doctor under special circumstances. Moreover, many certified but untrained midwives only charge a fee of 10/6.

In connection with the Trained Midwifery Scheme I wish to appeal to the medical profession in the County to give it their whole-hearted support without which it cannot be a complete success. Many medical practitioners who during the last few years have had an opportunity of judging the work accomplished by competent trained midwives have expressed their appreciation of such women, who should be regarded not as competitors of the doctor but as co-operators relieving them of much routine work at inconvenient hours.

Under the Milk (Mothers and Children) Order cases were assisted according to the scale of income given below which was in use during 1919:—

The family's total income is ascertained; 5/- weekly is added if there is a "free" house and coals; £2 is allowed for man and wife, 2/6 for each child under 5 years old; 5/- per child for the third, fourth, and fifth child, and 7/6 to every child after the fifth. Families whose income is under the above scale get free food and milk for nursing and expectant mothers, and free milk for each child under 5 years.

## Examples:—

Man and wife and 2 children.....	£2	5	0
„ „ 3 „ .....	£2	10	0
„ „ 6 „ .....	£3	7	6

Persons whose income was just over the standard were supplied with dried milk at 75% of cost price, which averaged 1/9 per lb. Each pound of dried milk will produce from seven to eight pints of reconstituted milk.

Assistance is granted for a period of 28 days, renewals being granted if necessary. Under special circumstances expectant and nursing mothers may be granted food, i.e., meat, eggs, oatmeal or margarine in lieu of milk.

At the end of 1919 seventeen dried milk sale stations were in operation throughout the County. The establishment of these stations was rendered necessary owing to the shortness of ordinary cows' milk, much of which was of poor quality.

The following statement shows the magnitude of this part of the work at the dried milk sale stations and the child welfare centres:—

Dried milk sold during the year...	49,773	lbs.
„ given free „ ...	3,022½	„
„ sold at half-price .....	60	„

## BABY WEEK.

Baby Week was celebrated during the year under review in the usual way, and a Baby Week Programme containing an article on the Maternity and Child Welfare work in the County, together with diagrams showing the infant mortality-rates in the individual sanitary districts was circulated to all local authorities, clergy of all denominations, miners' lodges, school teachers and other interested people. The County Travelling Child Welfare Exhibition visited most of the districts, and this, together with the demonstrations given by the Health Visitors and Domestic Science Mistresses aroused great interest.



## SUPERVISION OF ORPHAN CHILDREN OF DECEASED SAILORS AND SOLDIERS.

This work is undertaken by the health visitors, and at the end of 1919, 212 children were under observation and 1,555 visits were paid to them during the year.

## MENTAL DEFICIENCY ACT.

The supervision of mental defectives under this Act has also been undertaken by the health visitors, and 200 cases were on the books at the end of 1919, and 500 visits were paid to them.

## VENEREAL DISEASES.

For the treatment of venereal diseases arrangements have been made with The Royal Victoria Infirmary, Newcastle; The Royal Infirmary, Sunderland; The General Hospital, Darlington; The County Hospital, Durham; and The Stockton and Thornaby Hospital, Stockton; where there are 23 clinics per week for new cases, in addition to other sessions for old cases. Continuous irrigation facilities are provided at Newcastle, and special sessions at Sunderland and Stockton. Arrangements are in progress for such facilities at Darlington and Durham.

With the exception of Newcastle there are no facilities for disinfection immediately, or soon after exposure to infection.

Negotiations are proceeding for the establishment of clinics at Bishop Auckland, in premises leased from the Poor Law Guardians, and at Hartlepool, where a special temporary building, as an annexe to the Hartlepool Hospital will be erected. These arrangements have already been approved by the Ministry of Health.

There appears to be no available Institution in the densely populated north-west area of the County that could be used, so the question of an *ad hoc* clinic is under consideration.

These treatment centres (those already established and the proposed new ones) will to some extent meet the needs of the population, but in a County like Durham, with large villages, in many cases isolated, I am of opinion that the question of the adequate treatment of venereal disease can only be met by every general practitioner making himself proficient and receiving adequate payment for his services.

I would suggest that payment be made on the condition that some supervision be agreed to, such supervision to be also available for consultative assistance.

Twenty-four general practitioners have been approved to receive the free supply of salvarsan substitutes, of whom only five made application for the drugs.

Patients readily avail themselves of the facilities for treatment, if residing near one of the Clinics, but if living at any distance away, many of them will not put themselves to the inconvenience of regular attendance, even when granted travelling expenses. Complaints have been made by patients of the loss of many hours work entailed in attending the Clinics.

It is a matter for consideration that a very large percentage of patients (probably 50%, but the exact figures are difficult to estimate) cease attendance before completion of treatment, the causes being:—disappearance of visible symptoms, apathy and ignorance. One of the difficulties met with is that patients do not attend early enough, owing to:—fear, diffidence, auto-therapy and ignorant general practitioners.

It is a regrettable fact that many female gonorrhoea patients do not attend more than once, apparently attending for diagnosis only.

Arrangements have been made, and are in operation, with the College of Medicine, Newcastle, for the bacteriological and labora-

tory examination of material, free of cost to the general practitioners practicing in this County, but whether any active steps are taken to follow up the diagnosis with modern methods of treatment, I have no information.

I strongly favour a partial notification on the lines that where a patient ceases to attend a Clinic before completion of treatment, or at least before the patient is rendered non-infective, a report should be sent to the Medical Officer of Health.

I recognize the disadvantages, but I am of opinion that the advantages would more than compensate.

No legal actions have taken place in the County under the Venereal Diseases Act, 1917. The County is comparatively free from unauthorised treatment for gain, but there is evidence of much "friendly advice" being given which gives rise to auto-therapy with disastrous results.

### STATISTICS.

#### NO. OF PERSONS UNDER TREATMENT ON JANUARY 1ST, 1919:—

Syphilis .....	575
Soft Chancre .....	42
Gonorrhœa .....	318
Other than Venereal.....	60

#### NO. OF NEW CASES:—

Syphilis .....	1485
Soft Chancre .....	44
Gonorrhœa .....	969
Other than Venereal .....	308

#### NO. OF PERSONS WHO CEASED TO ATTEND BEFORE COMPLETION OF TREATMENT:—

Syphilis .....	830
Soft Chancre .....	19
Gonorrhœa .....	484



NO. OF PERSONS WHO CEASED TO ATTEND AFTER COMPLETION OF TREATMENT BUT BEFORE FINAL TESTS AS TO CURE:—

Syphilis .....	159
Soft Chancre .....	2
Gonorrhœa .....	82

NO. OF PERSONS DISCHARGED AFTER COMPLETION OF TREATMENT AND OBSERVATION:—

Syphilis .....	297
Soft Chancre .....	38
Gonorrhœa .....	203

TOTAL ATTENDANCES AT CLINICS:—

Syphilis .....	13,584
Soft Chancre .....	249
Gonorrhœa .....	15,191
Other than Venereal .....	420

SALVARSAN SUBSTITUTES USED:—

Arsenobillon.	Novarsenobillon.
Kharsivan.	Neokharsivan.
Diarsenol.	Galyl.

Bacteriological examinations for 1919, at the College of Medicine. Taken from the quarterly returns from the V.D. Clinical Medical Officers:—

	Wasserman.	Gonococci.	Spirochetes.
Darlington .....	12	5	—
Durham .....	292	17	—
Newcastle .....	1,075	23	—
Stockton .....	247	172	1
Sunderland .....	305	1	—
	—	—	—
Totals...	1,931	218	1
	—	—	—

## Examination by Medical Officers AT THE CLINICS:—

	Gonococci.	Spirochetes.
Newcastle .....	106	—
Sunderland .....	132	5
	—	—
Totals...	238	5
	—	—

**HOUSING.**

The housing question in this Administrative County, already acute in pre-war days, has now reached a most critical stage, and the extreme urgency of providing a large number of new houses to relieve the gross overcrowding that exists is palpable to all. Taking the Registrar-General's standard of overcrowding, viz., that an overcrowded house is one that contains more than 2 persons per occupied room (all rooms being included whether healthy or otherwise), then in 1911 about 28% of the population of this County were living under overcrowded conditions as compared with 9·1% for England and Wales, and the proportion actually exceeds 40% in five of the sanitary districts in this County. Since then I feel sure the percentage has very considerably increased, and the issue of the 1921 Census will disclose even worse conditions than those just mentioned. Referring to the large number of cases of overcrowding reported by the Health Visitors, the Superintendent Health Visitor states:—"In a large proportion of the cases tubercular patients were in residence. As in the preceding years, practically nothing was done to remedy matters. The County Medical Officer has written scores of letters urging the District Medical Officers of Health to take steps to remedy these gross cases of overcrowding, and the replies invariably indicate the writer's despair of being able to do *anything* until new houses are built. In one large urban district on Tyneside there were 18 reports concerning 28 rooms occupied by 124 people, of whom 22 *were suffering from Tuberculosis*. Included there were two cases of one-room tenements

“with five occupants and three cases of one-room tenements  
 “with six occupants with a tuberculous inmate in every instance.  
 “No wonder Tuberculosis is spreading in this County. In compari-  
 “son with this gigantic housing scandal the provision of dispensary  
 “treatment and a few hundred beds in sanatoria and hospitals is  
 “like the famous attempt of Mrs. Partington to dry up the Atlantic  
 “with her mop.”

Obviously it is utterly impossible to deal with the large number of very insanitary areas and properties until there is other available accommodation for the occupants to go to.

In addition to this overcrowding we have a standard of sanitation which in some districts is much below the average of the country generally. In the colliery districts there are still in existence a large number of two-roomed dwellings without proper ventilation or other amenities and with bad sanitary surroundings (i.e., unpaved yards, streets, etc.).

From the foregoing it will be evident that the housing needs of this County have assumed immense proportions, and I am convinced that at least 50,000 new houses are required in order to overtake the arrears of normal building construction, to replace houses unfit for habitation, to relieve the dangerous overcrowding, and to make provision for a very large number of houses which, although at present they cannot be regarded as unfit for habitation, fall far below a reasonable standard.

While some of the local authorities have fully realized their responsibilities in this matter, others certainly have not, but now that the Housing and Town Planning, Etc., Act, 1919, has become law every local authority must carry out a housing scheme which should be adequate for the needs of the district. The following table sets forth the position in the County at the end of the year:—





**HOUSING SCHEMES SUBMITTED TO THE MINISTRY OF HEALTH FROM LOCAL SANITARY AUTHORITIES  
IN THE ADMINISTRATIVE COUNTY OF DURHAM.**

Schemes submitted by	Est. Pop. to middle of 1918.	No. of Schemes	Sites.		Lay Outs.		House Plans.		Tenders.		Building in oper- ation or expected to com- mence shortly.	Remarks.
			Submt'd.	Apprv'd.	Submt'd.	Apprv'd.	Submt'd.	Apprv'd.	Submt'd.	Apprv'd.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
			Acres.	Acres.	Acres.	Acres.	No. of houses	No. of houses	No. of houses	No. of houses		
<b>URBAN DISTRICTS:—</b>												
Durham .....	...	1	5.92	5.92	5.92	...	...	...	...	...	...	
Hartlepool .....	20,500	3	11.13	11.13	11.13	11.13	...	35	...	...	35	
Jarrow .....	38,200	1	19.82	...	18.19	...	148	...	...	...	...	
Stockton .....	63,900	2	81.00	13.00	13.00	13.00	122	122	122	...	18	Streets & Sewers in hand, Proposal to make streets, etc., by direct labour on a 9.25 acre site.
Annfield Plain .....	16,600	6	65.52	19.01	19.01	9.25	...	...	...	...	...	
Barnard Castle .....	4,400	1	5.94	...	...	...	...	...	...	...	...	
Benfieldside .....	8,100	1	6.36	...	...	...	...	...	...	...	...	
Bishop Auckland .....	13,500	1	22.96	...	...	...	...	...	...	...	...	
Blaydon .....	34,000	2	114.20	9.30	...	...	110	...	...	...	...	
Brandon and Byshotles.	18,700	3	59.25	62.50	60.29	...	...	...	...	...	...	
Chester-le-Street .....	15,200	1	43.09	43.09	57.30	57.30	488	488	...	...	...	Old and new sites.
Consett .....	12,200	3	71.80	71.80	13.25	13.25	131	131	122	122	122	
Crook .....	12,900	2	20.94	...	20.94	...	228	...	228	...	...	
Felling .....	27,300	3	186.45	15.33	15.33	15.33	40	...	...	...	...	
Hebburn .....	24,400	1	44.19	44.18	42.00	...	...	...	...	...	...	
Hetton-le-Hole .....	16,200	2	24.00	...	20.34	...	...	...	...	...	...	
Houghton-le-Spring .....	9,600	1	17.00	18.00	...	...	...	...	...	...	...	
Leadgate .....	5,200	1	10.89	...	...	...	...	...	...	...	...	
Ryton .....	14,300	2	14.75	10.89	11.06	...	...	...	...	...	...	
Seaham Harbour .....	16,100	1	26.63	26.63	25.30	25.30	12	12	12	12	...	
Shildon .....	14,500	1	12.50	...	12.50	...	...	...	...	...	...	
Southwick-on-Wear .....	14,500	8	105.50	104.70	...	...	...	...	...	...	...	
*Spennymoor .....	18,000	...	...	...	...	...	...	...	...	...	...	Not given in Return.
Stanhope .....	2,000	1	4.56	...	...	...	...	...	...	...	...	
Stanley .....	24,400	2	156.26	...	43.52	...	...	...	...	...	...	
Tanfield .....	10,400	3	29.42	15.46	3.00	...	...	...	...	...	...	Not given in Return.
*Tow Law .....	...	...	...	...	...	...	...	...	...	...	...	
Whickham .....	20,200	5	56.82	39.00	27.00	27.00	...	...	...	...	...	
Willington .....	9,300	1	17.00	...	...	...	...	...	...	...	...	
<b>RURAL DISTRICTS:—</b>												
Auckland .....	62,600	16	117.09	27.98	...	...	...	...	...	...	...	
Barnard Castle .....	11,100	5	16.42	5.17	...	...	...	...	...	...	...	
Chester-le-Street .....	76,000	30	451.74	5.99	35.52	...	...	47	47	47	47	
Darlington .....	9,100	5	15.46	7.26	9.19	...	...	...	...	...	...	
Durham .....	30,900	8	148.93	19.30	19.30	19.30	193	193	...	...	...	
Easington .....	72,300	9	103.02	79.29	36.99	24.61	170	...	...	...	170	
*Hartlepool .....	2,600	2	94.70	90.89	92.70	...	767	...	...	...	...	Scheme submitted by Public Utility Society.
Houghton-le-Spring .....	26,600	7	59.50	54.71	9.90	9.90	...	...	...	...	...	
Lanchester .....	33,000	11	89.67	55.76	35.08	7.09	8	8	8	...	...	
Sedgefield .....	34,500	8	47.21	6.73	6.73	...	...	...	...	...	...	
South Shields .....	16,900	6	37.85	33.42	31.17	31.17	150	150	...	...	...	
Stockton .....	12,300	6	10.05	...	...	...	...	...	...	...	...	
do. ....	...	1	92.00	...	92.00	...	500	...	...	...	100	Scheme submitted by Public Utility Society.
Sunderland .....	30,100	5	37.58	12.08	27.04	...	...	...	...	...	...	
Weardale .....	9,300	2	5.38	...	...	...	...	...	...	...	...	

\* There is no official record up to date of any schemes having been submitted by these authorities.





The local authorities will have the valuable assistance of the Housing Commissioner with regard to such matters as sites, types of houses, materials, etc., but I would like to suggest that the following points should receive their very careful attention in the planning and construction of the new houses:—

- (1) There should be at least three good-sized well-ventilated bedrooms.
- (2) The installation of the water-carriage system.
- (3) The provision of a bathroom with hot and cold water supply laid on.
- (4) The provision of adequate larder accommodation.
- (5) The making up of the front and back streets, paving of yards, etc.
- (6) The erection of houses in "flats" should on no consideration be countenanced.

On inquiry, the subject of overcrowding in colliery districts invariably brings one face-to-face with the question of the "lodgers," who are mostly single men working away from home. I am convinced that the only solution to this problem is the establishment of municipal lodging-houses in the crowded industrial districts.

In this County, as in other parts of the country, we are faced with the difficulty of obtaining houses for the accommodation of the employees of the County Council—health visitors, teachers, policemen and roadmen, etc.—and it has been suggested to the district sanitary authorities that they might include in their housing schemes the dwellings needed for these persons, the County Council defraying the cost.

The free or colliery houses, which have from time to time been the subject of special reports, were again given close attention during the year. A large number of the miners and their families

live in these houses, many of which are in a most unsatisfactory condition. With the hope of effecting a general improvement, for many are urgently in need of attention, representatives of the County Council and the local sanitary authorities met the colliery owners in July, 1919, and while impressing upon them their responsibilities in connection with the health of their employees, made the following requests:—

(1) They should undertake the repair and renovation of insanitary and defective houses, and the replacement of old dwellings by new ones where necessary.

(2) They should abolish all back-to-back houses without delay.

(3) They should enlarge and improve most of the dwellings by building additional rooms on to the existing buildings.

(4) They should provide self-contained yards for houses wherever possible.

(5) They should procure the proper making, paving and channelling of front and back streets.

(6) They should abolish the ash-privy system and substitute water-carriage in every district where there are proper sewers and a water supply.

(7) They should procure proper larder accommodation in all their houses.

(8) They should provide baths in all existing houses wherever possible.

(9) They should provide proper baths with hot and cold water at the pit heads.

Owing to the unsettled conditions of the coal industry and to the possible effect of the administration of the Housing, Town Planning, Etc., Act, 1919, in improving housing conditions, no definite undertaking was given by the owners.

## BACTERIOLOGICAL EXAMINATIONS.

The following table gives the number of specimens, except those relating to Venereal Disease (which are given under "Venereal Disease"), examined during 1919, and compared with the preceding year there was an increase in the number of specimens of Diphtheria and Phthisis and a decrease in those of Enteric Fever. The number of positive cases per cent. decreased from 25·4 in 1918 to 19·4 in the year under review:—

	Number of Specimens submitted.	Positive.	Negative.	Inconclusive.
Diphtheria .....	445	97	280	68
Enteric Fever .....	80	26	47	7
Phthisis .....	994	172	822	—
Totals .....	1,519	295	1,149	75

## ISOLATION HOSPITALS.

The accommodation for the effective isolation of cases of infectious disease throughout the greater part of the County is satisfactory, but, as mentioned in the paragraph on "Infectious Diseases," the Smallpox outbreak in the Hartlepool Urban District exposed the insufficiency of the accommodation for the needs of the populous Hartlepool area. The Medical Officer of Health of the Hartlepool Urban District states:—"The accommodation is quite insufficient for the needs of the district, which comprises Hartlepool, West Hartlepool, the county around, and the Port of Hartlepool; a large modern hospital is urgently required. During the year an arrangement was made with the Corporation of Stockton for all cases of Smallpox to be sent to the Borough Smallpox Hospital and the Hartlepool Port Sanitary Hospital will no longer receive Smallpox cases." This latter hospital, which belongs to the Tees Port Sanitary Authority, in no way meets the requirements of the populous districts it serves, even for ordinary cases of infectious diseases, and its use as a Smallpox Hospital is a positive danger.



The Medical Officer of Health for the Jarrow Urban District also complains of the unsuitability and inadequacy of the Isolation Hospital having regard to the size of the district. The chief faults he mentions are :—(1) Insufficient number of beds. (2) No isolation block for mixed or complicated diseases. (3) Unsuitable position and inadequate ventilation of water-closets and slop-sinks as well as inadequate and unsuitable baths. (4) Cramped accommodation for nursing and administrative staff.

In the Weardale Rural District there is no isolation hospital accommodation for Enteric Fever cases, and the District Medical Officer of Health recommends that provision for such cases should be made.

### **WATER SUPPLY.**

The water supply for the Administrative County during 1919 was unchanged to any great extent and on the whole was sufficient and of good quality, but there are still complaints of the inadequacy of the water supply to some of the more elevated parts of the County and especially in the case of the village of Hamsterley, in the Auckland Rural District.

In September an important conference was convened by the County Council with the District Sanitary Authorities within the area supplied by the Weardale and Consett Water Co. The question of the desirability of the water supply of the County being publicly owned and controlled was discussed, and facts regarding the Weardale and Consett Water Co. were laid before the meeting when it was resolved :—

(1) That in the opinion of this conference of District Sanitary Authorities within the area of supply of the Weardale and Consett Water Company it is desirable that the supply of water in such areas should be publicly owned and controlled.

(2) That in the event of the opinion being in favour of the undertaking of the Company being publicly owned and controlled the County Council be requested to take the necessary steps to obtain powers for the formation of a joint water board and for the acquisition of the undertaking of the Company.

The County Council have since taken steps to promote a Bill in Parliament authorising the constitution of a joint Water Board to acquire and work the undertaking of the Weardale and Consett Water Company.

Referring to the individual sanitary districts in the County, the Medical Officer of Health in the Houghton Urban District states:—“The main supply for the area comes out of the Houghton Colliery and is pumped from there to the reservoirs on Miller’s Hill, a small additional supply is drawn from the Sunderland and South Shields Water Company to make up any shortage when the necessity arises. The water is extremely hard, being drawn from the limestone and, while suitable for drinking purposes, it is very costly in the use of soap for washing. The deposit on boiling the water is such that kitchen boilers require cleaning out every three months, and even when not heated the water throws down a deposit in the pipe which occasionally causes a stoppage. A supply of softer water would be a great boon to the district.”

The Medical Officer of Health of the Ryton Urban District also states:—“The water supply from the Newcastle and Gateshead Water Company has been of its usual good quality, but the quantity has been somewhat defective especially to the more elevated parts of the district. There have been several complaints of the water having been cut off without warning and for several hours, to the great inconvenience and discomfort of the occupants not to say danger to the public health.”

## **DISPOSAL AND REMOVAL OF EXCREMENT AND HOUSE REFUSE.**

During 1919 very little progress was made with the work of substituting the water-carriage system for the objectionable and disease producing ash-privy which is so general in most parts of this County. Even in districts where this vital improvement has been decided upon, the dislocation caused by the War and the high cost of labour and materials rendered systematic action very difficult. As regards the removal and final disposal of excrement and house refuse there was the usual list of complaints regarding



the unsatisfactory work of the contractors, length of time between emptyings, inconvenient situations and size of some of the ashpit-privies, scarcity of labour, etc. It is pretty obvious from the reports of the district medical officers of health that more and more attention is being directed by district sanitary authorities to the question of motor haulage for this work, and I am fully convinced that in the great majority of cases the adoption of this method would eventually mean a great improvement in the carrying out of the work and a saving in the cost of removal.

In the Hartlepool Urban District the Medical Officer of Health states "All refuse is consumed in the Corporation destructor, which is on a central and convenient site on the sea bank at Throston."

In the Jarrow Urban District, where the ash-closets are emptied weekly and the night-soil along with the contents of the ashpits is taken to sea, the Medical Officer of Health reports the inevitable difficulty with this method of disposal during bad weather, viz., the storing of the night-soil, etc., on the quay when the hoppers cannot put to sea.

In the Annfield Plain Urban District, where the Council has itself undertaken the scavenging work, employing its own labour and horses, etc., the Medical Officer of Health states, that there has not been such a great improvement as was expected in efficiency and economy under the new system, and he recommends, should there be no further improvement, the provision of light motor lorries.

The Benfieldside Urban District Council, who at present let their work to contractors, have had under consideration the provision of motor vehicles. The Medical Officer of Health also states "In every case where water-closets are being substituted for other types of closets, ash-bins are being provided where the yard or premises are self-contained. Where there is a common yard an ash-cell with proper cleansing doors is provided."

The Medical Officer of Health of the Chester-le-Street Urban District says:—"The scavenging for the whole of your district is done by your own workmen at a cost of 25/- per house."



The Medical Officer of Health for the Consett Urban District, in which motor vehicles are employed, states:—"The question of haulage by motor has been gone into very closely and the conclusion is that motors can be used more effectively for this purpose and at a saving in cost compared with horses and carts, and he recommends the purchase of new motor vehicles each to carry approximately 25 cwts."

In the Hebburn Urban District the Medical Officer of Health reports upon the difficulties of getting the refuse disposed of, and states that his Council is considering the erection of a pulveriser, but also states that this will by no means diminish the necessity for establishing the water-carriage system in all parts of the town, and says "The fact is that the earth-closet is not and cannot be made other than a dirty and offensive nuisance, and therefore ought to be abolished."

Owing to the exorbitant demands of scavenging contractors, the Hetton Urban District Council are also considering the advisability of purchasing light motor lorries to do this work. The Medical Officer of Health for this district also writes "The whole of the ashpits and ash-closets throughout the district were sprayed during the summer months with a disinfectant fluid. This precautionary measure was adopted with the view of preventing epidemic diarrhoea."

In the Houghton Urban District "a steam waggon has greatly facilitated refuse removal, which is now entirely done by the Council's workmen."

The Medical Officer of Health for the Ryton Urban District reports "It is the intention of the Council to procure a motor waggon for scavenging purposes, and it is desirable that scavenging should be carried out in the early morning hours before many people and especially before the children are about. Daytime scavenging, especially in windy weather, is very objectionable and highly dangerous and tends to the spread of all kinds of filth diseases."

In the Willington Urban District the Medical Officer of Health states:—"In the Willington and Brancepeth Colliery areas, however, scavenging has been, during the year, vastly neglected and has at times been a disgrace and a menace to the health of the district. The fault, as I learn, is owing to the great shortage of labour, the contractors not being able to get the men to do the work." As a consequence the District Council have decided to purchase a motor waggon "when it is hoped this terrible condition of things will be remedied."

Remarking upon the complaints regarding refuse tips, the Medical Officer of Health of the Chester-le-Street Rural District states:—"There cannot be a good tip or even a permissible tip for human excreta in your district. Your district is too dense for that purpose." Later on in his interesting report he states "So long as the ashpit and ash-closet prevail so long will there be complaints of the noisome tips" . . . "The War having practically blocked all really sanitary improvements, the substitution of ashpits by water-closets has made very little headway during the past five years."

The usual table showing the number and various types of closets is again omitted from this report owing to the fact that little work was possible on account of the scarcity of labour and materials, etc.

## STREETS.

As stated in my previous annual reports, the number of unmade-up streets in the Administrative County is very large and during the year under review, with labour and other difficulties, their number was not much reduced. The conditions in some of these unmade-up streets in winter are appalling and are most inimical to the health of the occupants of the houses. During the year the County Health Inspector has been re-inspecting some of the urban districts in the County and in his report on the conditions in the Bishop Auckland Urban District he states:—"Several



of the streets were almost ankle deep in mud, amongst the worst being the Back Lane, the rear of Latherbrush Houses, that in front of the Bats, and the three Bridge Streets. Several other streets, old and new, are still unmade, amongst which are Salisbury Place, Oxford Terrace and Street, Sun Street, Dixon Street, St. Andrew's Terrace, Skeleton Road, rear of Hexham Street West, etc." Again, in his report on the Ryton Urban District the County Health Inspector writes "An outstanding feature in this district is the unusually large number of unmade streets, especially back streets, which sooner or later tends to squalid conditions affecting the public health and comfort and depreciation of property. Surely if street works are necessary at all they should be provided as soon as possible after the erection of the properties if not before." He also says that in this district some of the unmade back streets have been in existence over 50 years or more and should receive prompt attention. The Medical Officer of Health for the same district states "many back streets also are in very bad condition, among the worst being that on the south side of May Avenue. Owing to the high level the surface water runs into the yards of the houses and ash-closets through the hatches, and in wet weather causes serious inconvenience." He also remarks upon the number of defective footpaths within the Urban District.

With regard to the streets in the Seaham Harbour Urban District, the Medical Officer of Health writes . . . "the following streets have been macadamised:—South Terrace, Marlborough Street, South Crescent, Castlereagh Road, parts of George Street, and Blandford Place. Other streets are urgently in need of repair and will receive attention as soon as possible."

The Durham Rural District Council have obtained urban powers under the Private Street Works Act, 1892, with respect to the making up of the Bearpark Colliery Road and sixteen private streets at Kimblesworth. In the former case specifications, estimates, etc., have been prepared and a contract let, the work having actually commenced. In the latter case, owing to the great increase in the prices of labour and materials, the carrying out of the work has been postponed.



## DAIRIES, COWSHEDS AND MILKSHOPS.

During the year 1919, a fair amount of work has been carried out under this heading, but in some of the annual reports of the district medical officers of health no mention whatever is made of the conditions under which the milk supply is produced and retailed. Early in the year the whole of the sanitary authorities in the County were circularised regarding the importance of a pure and clean milk supply, and from the replies received it is evident that the local sanitary authorities are giving attention to this important matter.

As previously pointed out, some of the danger points in the present methods of milk supply are:—

- (a) The defective construction, siting and arrangements of the cowsheds.
- (b) The same with regard to the dairies at the farms.
- (c) The uncleanness of the milkers, cows' udders, utensils, etc.
- (d) The lack of a proper water supply laid in to the cowsheds.
- (e) The defective construction of the churns.
- (f) The many opportunities for contamination in transit.
- (g) The existence of small retail shops where the sale of milk is only a side line, and without proper provision for the storing of the milk.
- (h) The grossly insanitary methods of distribution by carts.
- (i) The absence of proper storage accommodation in the houses of the consumers.

In the Annfield Plain Urban District the Medical Officer of Health reports that there are 17 registered cowkeepers in the district, and to 10 of these notices for the abatement of nuisances had to be served during the year.

The Medical Officer of Health for the Benfieldside Urban District states that "one cowshed has been remodelled during the year, and some of the others would have been dealt with but for the shortage of labour."

Owing to the insufficiency of the milk supply in several districts in the County a considerable amount of dried milk has been used, but in the Consett Urban District, where the milk supply was insufficient for the need of the District, the Urban District Council have got over the difficulty by purchasing stock and graze their cows at their sewage farm at Stamfordham. The Medical Officer of Health, referring to this experiment, writes: "The departure has fully justified the cost and is a marked benefit. All the cows are subjected to the tuberculin test and a pure supply is thereby ensured."

The Medical Officer of Health of the Hebburn Urban District, referring to the vital need for cleanliness of the milk supply, states:—"It is to be hoped that before long the question of pure milk will engage the earnest attention of the Ministry of Health. It is no exaggeration to say that most of the milk sold in Hebburn is actually a danger to health. Most of it is brought long distances by train and on arrival has lost its freshness and usually is dirty and contaminated. In some cases there is only one delivery in the twenty-four hours, which means that in hot or thundery weather the milk sours and becomes useless. Under such circumstances an infantile mortality rate of 131 ceases to cause surprise."

An important point in the provision of a pure milk supply is the cleanliness both of the cows and the milkers. Discussing this matter, the Medical Officer of Health for the Willington Urban District says:—"The milking utensils have been found always to be kept clean, but I cannot find that the cows are at any time groomed or their udders cleansed, and although the hands of the milkers are stated to be washed before milking I would not like to say that this is done in every instance."

In a special report on the condition of the farms in the Haitlepool Rural District, the following facts are mentioned:—"The byres were in a very bad state of repair in many cases.

Uneven floors are impossible to get quite clean, and cobbled byres were frequently met with on the smaller farms. Byre floors should be swilled daily, but this becomes a long arduous task where a tap is not situated near the byre and the water has to be carried from a spring some distance away. In very few cases were the udders of the cows cleansed, and only where land-girls did the milking were overalls put on before beginning." In the same report, referring to the dairies on the farms, it is stated that these were clean in many cases but some were used for other purposes, "for storing meat and other foodstuffs, and frequently the domestic washing was done in the same place as the milk was kept overnight. In every case the pails, measures, and pans were scalded after using, but as they were sometimes kept in an unclean place they would be re-infected before the next milking time."

In my opinion the Milk and Dairies (Consolidation) Act, 1915, will go far towards giving local authorities the power of supervision and control over the milk supply which is so essential to the public health.

## **DRAINAGE, SEWERAGE, AND SEWAGE DISPOSAL.**

During the past year little or nothing has been done beyond the carrying out of a few minor sewerage works, although in 1915, seeing that there was much room for improvement in the condition and efficiency of several of our sewage purification works, the local authorities were urged to have plans, etc., ready for proceeding with the necessary works at an opportune moment.

This is not altogether surprising considering the shortage of both suitable labour and materials and the tendency in some quarters to take advantage of such excuses for delay. The serious question of cost has doubtless also influenced many authorities. I believe that one of the several contracts brought to an end compulsorily during the War has been re-let for completion at 200% above pre-War prices.

It is to be hoped, however, that with the gradual return to more normal conditions and the willing, active and progressive co-operation of the responsible authorities and officials, the pro-



vision of new works and the sanitary condition and efficiency of existing works will receive proper attention without unnecessary delay.

A regular system of inspection shews that the efficiency of many of the sewage purification works overlying the coal measures in the County is seriously affected by mining operations and that some of the authorities concerned are faced with very difficult and costly problems.

The attention of three sanitary authorities has been called during the year to refuse tips formed by them on the banks of streams, causing both nuisance and pollution. Yet these offending authorities have more legal power for dealing with such conditions than the County Council. The Rivers Pollution Prevention Act was passed 44 years ago and is altogether inadequate for dealing with conditions as we find them to-day.

### FOOD AND DRUGS ACT.

The provisions of this Act are carried out in this County by a Chief Inspector of Weights and Measures acting directly under the Executive Committee of the County Council, and he does not report to the County Health Committee. As stated in my last Annual Report, the boroughs of Hartlepool and Durham take and deal with their own samples, and in the boroughs of Stockton and Jarrow samples are taken by local officials and submitted by them to the County Analyst.

In the Administrative County the total number of samples examined during each quarter of the year by the County Analyst are here given :—

1919.					
	Samples Examined.	Not Genuine or below Standard.		Proportion per cent.	
1st Quarter	247	...	46	...	18·6
2nd Quarter	329	...	72	...	21·9
3rd Quarter	224	...	48	...	21·4
4th Quarter	259	...	33	...	12·7
	<hr/> 1,059 <hr/>	...	<hr/> 199 <hr/>	...	<hr/> 18·7 <hr/>

It will be seen that of 1,059 samples taken 199 or 18·7 were found adulterated or below standard.

Of the total number of samples examined 367 were of milk, the number found adulterated or below standard being 207 or 56·4 per cent., as compared with 40·6 per cent. in 1918. It would thus appear that the sophistication of the milk supply in the County is on the increase.

All the above samples of milk were examined for the presence of preservatives. Under the Public Health (Milk and Cream) Regulations, 1912, no samples of cream were taken by the Food and Drugs Department during the year.

### MIDWIVES ACTS.

One hundred and twenty-nine midwives gave notice of their intention to practise in January, 1919. Of this number 62 were trained women and 67 were untrained. During the year 530 visits were paid to these midwives. Ninety-one special visits of enquiry were made, and the rest were ordinary routine visits.

During the year, the following notifications were received from certified midwives:—Sending for Medical Help, 830; Still-births, 134; deaths of infants, 26; liability to be a source of infection, 11; and artificial feeding, 32.

Two cases of puerperal fever occurred in the practise of certified midwives.

Fifty-two cases of Ophthalmia Neonatorum were notified by certified midwives, as occurring in their practise. 6,696 births were notified by midwives (the number of births registered in the Administrative County was 23,529). The deaths of four midwives took place during the year, and three midwives voluntarily resigned their certificates and had their name removed from the Midwives Roll on account of old age, ill-health and inability to comply with the rules.

Charges of neglect were cited against one midwife during the year. The charges were proved by the Central Midwives Board, and her name was removed from the roll of midwives and her certificate cancelled. Eleven midwives were formally warned for breaches of the rules of the Central Midwives Board, and one midwife was warned for failure to comply with the Notification of Births Act.

One County Scholarship Holder was successful in obtaining the certificate of the Central Midwives Board, and was appointed to a district under the Trained Midwives Scheme. The amount of work she has done has quite justified her appointment.

**SUBSIDISED DISTRICTS.**—During the year, three trained midwives who were practising in subsidised districts have entered the service of the District Nursing Associations. At the end of the year seven midwives were practising in subsidised districts. Ten trained midwives are employed by Nursing Associations and nine by medical practitioners.

**UNCERTIFIED PRACTISE.**—The practise of midwifery by 166 uncertified women was enquired into. Formal warnings were sent to these women in 68 cases, and the remainder appeared to be cases of emergency.

**MIDWIVES ACT, 1918.**—In accordance with this act, all practising midwives are now supplied with case registers, postage, and all notification forms free of charge.

The Local Supervising Authority is now responsible for paying the fee of a medical practitioner called in by a midwife in cases of emergency as defined by the rules of the Central Midwives Board. Provision is made for the recovery of such fee from the patient, husband, or other person liable to maintain the patient, in certain cases.



## LOCAL GOVERNMENT BOARD INQUIRIES.

The following Local Government Board Inquiry was held during the year 1919, in respect of an application from a Local Authority in the County relative to public Health matters :—

1919.	Applicant.	Amount	Purpose.	Result.
February	Chester-le-Street U.D.C.	£8000	Works of Sewerage and Sewage Disposal in Pelton Fell Ward of the Urban District and certain works in the Parish of Pelton in Chester-le-Street Rural District.	Postponed.

TABLE A.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE URBAN DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

URBAN DISTRICTS.	Medical Officer of Health.	Area in Acres.	Population 1919. (Estimated).	Births.	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality rate per 1,000 Births.	Phthisis death- rate.	Total Tubercu- losis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation	Number of cases removed to Isolation Hospital.	Deaths occurring within District, excluded.	Deaths occurring outside District included
<b>BOROUGHES.</b>																	
Durham.....	Arthur Pain, M.R.C.S.	1066	17373	342	276	19·68	15·88	0·40	102	1·38	1·55	3·57	254	Yes.	40	83	16
Hartlepool.....	George Jubb, M.D., D.P.H.	735	20891	587	356	28·09	17·04	0·62	131	1·24	1·53	4·05	264	Yes.	62	28	52
Jarrow.....	G. R. Bruce, M.D., D.P.H.	783	35218	998	700	28·33	19·87	1·76	154	1·90	2·44	4·97	1582	Yes.	109	5	94
Stockton.....	Thomas Horne, M.D.	5465	63024	1532	1088	24·30	15·99	1·11	105	1·09	1·62	3·01	1175	Yes.	369	33	44
<b>URBAN DISTRICTS.</b>																	
Amfield Plain.....	W. M. Morison, L.R.C.P., D.P.H.	3489	16530	428	235	25·89	14·21	1·39	109	1·21	1·45	2·60	467	Yes.	169	2	37
Barnard Castle.....	C. H. Welford, M.D.	560	4741	80	68	16·87	14·34	0·21	75	0·84	1·26	1·68	117	Yes.	12	9	4
Benfieldside.....	John Murray, M.B., Ch.B.	1525	8854	206	125	23·26	14·11	1·46	82	1·13	1·24	2·93	409	Yes.	47	40	15
Bishop Auckland.....	T. A. McCullagh, M.R.C.S.	691	14202	300	202	21·12	14·22	0·70	100	0·98	1·34	1·97	330	Yes.	25	74	10
Blaydon.....	H. Morrison, M.B., B.S., B.Hy.	9314	32679	842	468	25·76	12·48	1·01	107	0·70	1·19	2·39	791	Yes.	69	8	41
Brandon & Byshottles	Henry Smith, M.D.	6669	18434	490	235	26·58	12·74	0·75	122	0·65	0·92	2·71	396	Yes.	72	4	21
Chester-le-Street.....	D. Duncan, M.B.	2511	15418	376	201	24·38	13·03	0·84	106	0·64	1·23	1·68	453	Yes.	69	46	8
Consett.....	A. D. M. Macintyre, M.B.	1005	11983	314	203	26·20	16·10	1·16	89	0·75	1·00	3·75	296	Yes.	...	1	26
Crook.....	A. Mackay, M.D.	4056	12626	302	178	23·92	14·09	1·19	125	0·71	1·11	2·61	558	Yes.	58	1	12
Felling.....	Wm. E. Peacock, M.D., B.Hy.	2684	23927	700	415	27·00	16·00	0·77	108	1·31	1·73	2·77	327	Yes.	21	4	53
Hebburn.....	E. E. Norman, M.B., B.S., D.P.H.	1241	23689	736	450	31·07	19·00	1·14	133	1·56	2·32	3·88	855	Yes.	81	16	57
Hetton-le-Hole.....	R. Macleod, M.B., D.P.H.	1617	16959	474	284	27·95	16·74	1·47	112	0·94	1·53	2·95	533	Yes.	26	2	25
Houghton-le-Spring...	W. Barkes, M.D.	1551	10115	305	166	30·15	16·41	0·89	111	0·89	0·89	2·66	349	Yes.	27	13	14
Leadgate.....	John Murray, M.B., Ch.B.	1836	5129	142	69	27·68	13·45	1·04	119	0·78	0·78	2·53	149	Yes.	...	...	10
Ryton.....	James W. Smith, M.D.	5169	14000	329	181	23·50	12·92	1·85	106	0·71	0·86	2·21	274	Yes.	59	2	17
Seaham Harbour.....	Luke G. Dillon, M.D.	1101	16728	508	222	30·37	13·27	0·59	88	1·01	1·67	2·21	77	Yes.	11	6	25
* Shildon.....	L. C. Nash, L.R.C.S.	1066	14030	314	189	22·38	13·47	1·69	130	0·92	1·07	2·21	...	Yes.	42	...	21
Southwick-on-Wear...	John J. Carruthers, M.B.	856	14470	397	255	27·42	17·63	0·62	111	1·17	1·93	6·08	266	Yes.	81	1	60
Spennymoor.....	W. Mussellwhite, M.R.C.S., D.P.H.	3388	18176	436	247	23·98	13·58	0·55	96	0·93	1·43	2·86	377	Yes.	66	4	27
Stanhope.....	John Gray, M.B.	216	1941	37	26	19·06	13·39	...	135	0·51	0·51	1·03	13	Yes.	2	9	...
Stanley.....	E. G. D. Benson, L.R.C.P., D.P.H.	3593	24731	684	373	27·65	15·08	0·85	144	0·93	1·21	2·91	763	Yes.	228	4	49
Tanfield.....	E. G. D. Benson, L.R.C.P., D.P.H.	4779	10335	302	147	29·21	14·22	1·06	122	0·29	0·38	2·42	332	Yes.	58	22	13
* Tow Law.....	J. H. Naismith, M.D.	477	4123	99	50	24·01	12·12	0·24	40	0·24	0·72	1·94	...	Yes.	...	...	7
Whickham.....	Andrew Smith, M.D.	5914	18988	432	255	22·75	13·43	0·95	110	0·79	1·21	2·10	393	Yes.	35	5	33
Willington.....	R. E. Brown, L.R.C.P.	3793	9104	208	105	22·84	11·53	0·33	77	0·44	0·44	1·09	38	Yes.	21	2	19

\* Annual Report for 1919 not yet received.





TABLE A1.

TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE URBAN DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

URBAN DISTRICTS.	DEATHS AT SUBJOINED AGES.									DEATHS FROM SUBJOINED CAUSES.																														
	At all ages.	Under 1 Year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Pituitis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's disease.	Puerperal Fever.	Other accidents and diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other defined Diseases.	Diseases ill-defined or unknown.	
Durham.....	276	35	15	9	17	18	28	56	98	...	...	...	...	...	3	15	...	24	...	3	23	1	1	27	37	25	2	6	...	...	...	6	...	1	12	3	1	73	...	
Hartlepool.....	356	77	10	25	28	16	45	75	80	...	1	3	3	...	...	40	1	26	2	4	12	...	1	40	32	53	5	8	1	...	...	10	...	2	26	5	1	53	2	
Jarrow.....	700	154	45	55	49	37	101	134	125	...	...	15	9	...	1	73	...	68	11	7	39	1	13	43	42	122	3	45	2	..	...	3	1	1	46	18	3	112	...	
Stockton.....	1,008	162	44	46	67	50	126	220	293	1	...	13	14	6	9	55	1	69	14	19	73	2	10	65	105	84	9	35	5	3	1	16	..	8	71	24	1	253	2	
Annfield Plain.....	235	47	13	18	24	20	31	31	51	1	...	3	2	1	11	20	...	20	2	2	9	1	3	15	18	25	7	7	...	2	...	8	...	2	22	3	..	43	...	
Barnard Castle.....	68	6	...	2	3	4	5	19	29	...	...	...	...	...	...	5	...	4	2	...	3	...	1	10	3	5	1	1	...	...	...	1	...	...	2	1	1	24	1	
Benfieldside.....	125	17	7	8	8	3	27	25	30	...	...	5	1	1	5	17	...	10	1	..	8	...	...	13	7	19	1	2	1	...	...	2	...	...	5	1	...	20	2	
Bishop Auckland.....	202	30	6	9	7	9	27	43	71	1	...	2	3	...	2	24	...	14	...	5	8	1	2	12	14	14	1	2	...	...	1	4	...	...	10	2	...	67	1	
Blaydon.....	408	90	32	34	27	22	49	80	74	1	..	9	2	5	1	22	1	23	8	8	28	...	4	27	19	56	10	20	2	1	1	9	...	4	31	6	4	76	2	
Brandon & Byshottles	235	60	13	16	14	9	30	38	55	3	...	1	1	3	1	15	...	12	3	2	18	...	2	12	20	29	2	9	2	...	...	1	...	1	24	2	...	50	...	
Chester-le-Street.....	201	40	11	8	13	10	23	38	58	...	...	7	...	2	1	12	...	10	4	5	8	...	2	19	11	15	2	4	1	1	...	3	1	1	10	10	2	53	1	
Consett.....	203	28	8	15	16	13	26	51	46	...	...	4	1	1	7	15	1	9	1	2	12	2	3	28	11	34	1	1	1	1	...	2	...	1	14	3	...	45	1	
Crook.....	178	38	14	9	8	9	22	28	50	...	...	7	2	...	...	6	...	9	1	4	5	2	4	17	15	18	1	7	...	1	...	2	...	3	14	5	1	46	...	
Felling.....	415	76	15	25	32	27	57	72	111	...	...	2	...	..	3	33	...	34	6	5	24	1	10	21	25	47	2	25	...	2	...	17	1	2	23	13	4	84	6	
Hebburn.....	450	98	22	34	45	36	56	77	82	...	...	6	2	...	4	83	..	37	8	10	21	2	9	23	37	55	3	22	3	...	...	12	...	2	28	7	2	57	2	
Hetton-le-Hole.....	284	53	17	35	19	17	42	39	62	1	...	8	2	7	2	43	...	16	1	9	6	1	2	22	21	28	2	5	...	...	...	3	...	3	27	6	...	59	...	
Houghton-le-Spring...	166	34	6	12	15	10	23	24	42	1	...	1	...	...	2	33	...	8	...	1	9	...	2	12	7	18	3	5	1	...	..	5	..	..	12	1	...	35	...	
Leadgate.....	69	17	6	7	3	5	6	12	13	...	...	2	...	1	6	6	1	4	...	...	5	...	...	3	5	8	1	2	...	...	...	...	...	...	9	2	...	10	1	
Ryton.....	181	35	9	12	16	16	23	30	40	...	...	3	...	1	16	18	...	10	2	...	6	1	1	12	7	23	1	7	...	...	...	5	1	3	6	2	2	48	1	
Seaham Harbour.....	222	45	15	13	23	14	37	36	39	...	...	1	...	4	1	39	...	17	2	9	12	1	2	24	27	10	3	4	...	1	...	2	1	2	22	5	...	26	...	
Sildon.....	189	41	12	9	12	6	24	42	43	1	...	6	...	5	2	15	...	13	1	1	3	...	3	22	25	6	2	2	4	...	...	2	...	...	18	4	...	45	...	
Southwick-on-Wear....	255	44	10	16	32	19	33	51	50	...	...	1	2	1	1	19	...	17	5	6	6	1	2	22	34	53	1	5	1	...	...	4	...	...	21	10	2	30	...	
Spennymoor.....	247	42	13	16	14	21	24	54	63	...	...	2	1	...	2	16	...	17	2	7	18	2	6	14	27	25	...	7	1	2	...	6	2	2	21	8	2	49	...	
Stanhope.....	26	5	...	...	1	...	2	8	10	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	2	...	...	...	...	...	...	1	...	1	3	1	...	15	...	
Stanley.....	373	99	18	25	29	29	43	57	73	3	...	4	3	3	3	30	1	23	1	6	17	1	10	18	56	36	4	9	2	2	...	8	2	5	38	10	2	65	2	
Tanfield.....	147	37	9	3	6	7	21	29	35	...	...	3	1	1	1	15	...	3	...	1	9	1	1	18	8	16	3	7	...	...	..	3	...	...	12	2	...	34	...	
Tow Law.....	50	4	2	3	3	4	5	11	18	...	...	1	...	...	...	2	...	1	1	1	2	...	1	5	7	1	...	1	1	...	...	1	...	..	2	...	...	20	..	
Whickham.....	255	51	12	18	16	9	36	52	61	...	...	5	1	5	2	20	...	15	4	4	13	...	3	25	13	27	1	9	...	...	...	4	...	1	14	6	2	65	1	
Willington.....	105	16	5	3	3	2	11	25	40	...	...	1	...	...	...	10	...	4	...	...	8	1	2	6	6	4	1	3	...	1	...	2	...	...	10	3	1	34	1	
TOTAL.....	7,629	1,481	389	485	550	442	983	1457	1842	13	1	115	50	47	86	702	6	518	82	121	406	22	100	575	621	856	72	260	28	17	3	142	9	45	533	163	31	1591	26	



TABLE B.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS.	Medical Officer of Health.	Area in Acres.	Population 1910. (Estimated).	Births.	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality- rate per 1000 Births.	Phthisis death- rate.	Total Tubercu- losis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation?	Number of cases removed to Isolation Hospital.	Deaths occurring within District, excluded.	Deaths occurring outside District, included.
Auckland .....	T. C. Penfold, M.B., D.P.H.	57334	60757	1511	805	24·87	13·25	0·93	107	0·80	1·03	1·86	1424	Yes.	267	18	66
Barnard Castle .....	James C. Neligan, L.R.C.S.	79961	11863	222	178	18·71	15·00	0·42	99	0·76	0·84	1·09	221	Yes.	34	...	21
Chester-le-Street ..	J. Taylor, M.D., D.P.H.	32109	70040	1778	910	25·38	12·99	1·15	114	0·65	0·95	1·95	2017	Yes.	367	14	98
Darlington .....	Robert H. Meikle, M.B. ....	42019	9596	175	145	18·23	15·11	0·52	120	0·41	0·73	2·08	100	Yes.	9	8	10
Durham .....	A. T. Harrison, L.S.A. ....	30871	31420	804	463	25·59	14·73	0·73	112	0·71	0·98	2·73	360	Yes.	81	14	44
Easington .....	J. Arthur, L.R.C.P., D.P.H.	37018	72454	2076	1108	28·65	15·29	0·92	119	0·91	1·42	3·38	1119	Yes.	193	25	83
Hartlepool.....	T. G. Ainsley, M.D. ....	19090	3603	62	27	17·20	7·49	...	64	0·55	0·83	0·83	38	Yes.	13	158	...
Houghton .....	F. R. V. Langenberg, M.B. ....	13192	26967	755	464	28·00	17·20	1·11	151	0·88	1·39	3·23	558	Yes.	65	8	42
Lanchester.....	T. Buckham, M.B., B.S., B.Hy.....	51151	33685	768	435	22·80	12·91	1·08	121	0·53	1·79	2·31	889	Yes.	...	81	27
Sedgefield .....	C. Basan, M.D. ....	45006	36457	929	433	25·48	11·87	0·54	99	0·77	0·98	2·85	614	Yes.	157	262	23
South Shields .....	W. Armstrong, L.R.C.P. ....	12073	18187	412	271	22·65	14·90	1·04	126	1·09	1·21	2·47	371	Yes.	45	272	8
Stockton .....	T. J. Kirk, M.B. ....	32013	14059	262	155	18·63	11·02	1·28	141	0·42	0·42	1·49	253	Yes.	21	17	8
Sunderland .....	G. W. Scott, M.D., D.P.H.	6980	30256	741	408	24·49	13·48	0·82	104	0·82	1·22	2·61	620	Yes.	135	112	47
Weardale .....	James Bannerman, M.B. ....	97753	9551	134	153	14·03	16·02	0·41	112	0·42	0·52	1·25	144	Yes.	17	13	17



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TABLE B1.

TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS	DEATHS AT SUBJOINED AGES.									DEATHS FROM SUBJOINED CAUSES.																													
	At all ages.	Under 1 Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meunigitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright Disease.	Puerperal Fever.	Other accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Pre-mature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other defined Diseases.	Diseases ill-defined or unknown.
Auckland.....	805	163	61	52	42	56	101	134	196	2	...	17	3	12	4	84	3	49	4	10	51	1	4	59	61	52	7	25	5	2	...	17	1	6	69	18	9	169	4
Barnard Castle.....	178	22	4	9	16	8	15	46	58	...	...	...	1	2	2	18	...	9	...	1	11	...	2	26	7	6	2	1	...	...	...	5	...	1	14	6	2	53	2
Chester-le-Street.....	910	203	52	49	81	39	129	147	210	...	...	24	8	2	23	89	4	46	9	12	56	3	13	58	59	76	12	38	3	2	1	20	..	7	77	25	1	193	3
Darlington.....	145	21	3	5	4	8	18	30	56	...	...	2	1	1	1	13	...	4	2	1	13	...	...	13	7	13	2	3	1	...	...	1	...	3	12	2	2	40	...
Durham.....	463	90	22	31	21	23	69	78	129	...	...	4	1	4	6	49	...	27	2	2	21	...	3	41	47	37	2	13	1	4	..	14	...	4	39	15	4	94	1
Easington.....	1108	247	59	103	77	83	122	197	220	3	...	6	16	11	11	94	...	66	8	29	48	3	15	59	96	148	12	25	6	2	1	26	2	7	92	33	1	223	3
Hartlepool.....	27	4	1	1	2	4	5	4	6	...	...	...	...	...	..	7	...	2	1	...	1	...	...	2	1	2	...	...	...	...	...	...	...	2	3	...	4	...	
Houghton.....	464	114	23	32	40	28	66	59	102	1	...	4	4	5	6	69	1	24	1	10	17	...	4	31	38	49	3	11	...	...	...	5	...	4	41	16	4	86	3
Lanchester.....	435	93	14	24	36	28	61	81	98	1	...	5	5	3	10	55	...	18	3	3	27	3	4	28	39	38	6	13	2	1	..	16	...	4	38	9	1	76	...
Sedgefield.....	433	92	18	21	27	34	57	87	97	1	...	6	1	1	5	29	...	28	1	7	19	2	6	33	36	67	3	7	3	3	...	5	...	1	17	20	...	98	1
South Shields.....	271	52	6	10	18	11	34	56	84	...	...	2	1	...	9	16	1	20	1	1	19	1	3	21	20	25	2	10	...	1	1	5	1	3	22	8	2	61	2
Stockton.....	155	37	6	7	10	7	25	34	29	...	...	3	...	...	6	16	...	6	...	...	6	...	2	20	1	20	...	10	...	...	...	4	...	2	17	8	...	28	...
Sunderland.....	408	77	24	23	28	13	56	87	100	1	...	8	3	2	1	40	...	25	6	6	22	3	2	34	49	29	5	11	1	2	...	10	...	...	22	8	1	97	...
Weardale.....	153	15	2	5	6	7	11	45	62	...	...	1	...	...	1	7	...	4	...	1	17	1	1	15	5	7	5	4	...	...	...	7	...	...	9	4	2	57	2
TOTAL.....	5,955	1,230	295	372	408	349	769	1,085	1,447	9	...	82	44	43	85	586	9	328	38	83	328	17	59	440	466	295	61	171	22	17	3	135	4	42	471	175	29	...	...

# REPERTAIN AGIE

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65 and upwards	Enteric Fever.	Smallpox	Other accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Pre- mature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other defined Diseases.	Diseases ill-defined or unknown
196	2	...	6	69	18	9	169	4
58	...	...	1	14	6	2	53	2
210	...	...	7	77	25	1	193	3
56	...	...	3	12	2	2	40	...
129	...	...	4	39	15	4	94	1
220	3	...	7	92	33	1	223	3
6	...	...	...	2	3	...	4	...
102	1	...	4	41	16	4	86	3
98	1	...	4	38	9	1	76	...
97	1	...	1	17	20	...	98	1
84	...	...	3	22	8	2	61	2
29	...	...	2	17	8	...	28	...
100	1	...	...	22	8	1	97	...
62	...	...	...	9	4	2	57	2
1,447	9	...	42	471	175	29	...	...





